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PETUNIA PLANT NAMED 'SUNROVEIN'

BOTANICAL CLASSIFICATION

Petunia hybrida

VARIETAL DENOMINATION: 'Sunrovein'

5 BACKGROUND OF THE VARIETY

The Petunia is a very popular plant that is used for flower bedding and potting in the summer season. There are only a few Petunia varieties which do not have an upright growth habit and which have a high resistance to rain, heat, and diseases. The Petunia plant varieties for which we previously filed patent applications, i.e., the 'Revolution' series ('Revolution Purple pink' (U.S. Plant Patent No. 6,915), 'Revolution Brilliant pink' (U.S. Plant Patent No. 6,914), 'Revolution Brilliant pink-mini' (U.S. Plant Patent No. 6,899), and 'Revolution Blue vein' (U.S. Plant Patent No. 9,322)) are decumbent type plants having long stems, a lower plant height, abundant branching, and a high resistance to heat, rain and diseases. However, there are only a few Petunia varieties having a great profusion of flowers, vivid colored flower petals and a high resistance to rain, heat, cold and diseases. Accordingly, this invention was aimed at obtaining a new variety which had many flowers having vivid purplish red colored petals with deep purplish red vein, many branching and decumbent growth habit together with the above features.

20 The present new distinct cultivar of Petunia was created by heavy ion beam irradiation of the *Petunia* hybrid variety called 'Revolution brilliant pink'. 'Revolution brilliant pink'(U.S. Plant Patent No. 6,914) is our *Petunia* hybrid variety and is grown in Shiga, Japan.

25 In November 1999, 5 Gy of ionic neon (135MeV) were irradiated on 128 pieces of in-vitro meristems of 'Revolution brilliant pink' using the Ring Cyclotron at the Institute of Physical and Chemical Research in Japan. All shoots developed from irradiated meristems were planted in soil in a greenhouse. In April 2000, we

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selected a plant having vivid purplish red petals with a deep purplish red pattern. That plant was propagated by cutting, grown in pots and used in a trial in April 2001 in Yokaichi, Shiga, Japan. By October 2001, the botanical characteristics of that plant were examined. As a result, it was concluded that this new *Petunia* plant is distinguishable from any other variety, whose existence is known to us, and is uniform and stable in its characteristics. This new variety of *Petunia* plant was named 'Sunrovein'.

The new variety of *Petunia* plant 'Sunrovein' was asexually reproduced by cutting at Yokaichi-shi, Shiga-ken, Japan, and the homogeneity and stability thereof were confirmed. The instant plant retains its distinctive characteristics and reproduces true to type in successive generations.

In the following description, the color-coding is in accordance with the Horticultural Colour Chart of The Royal Horticultural Society, London, England (R.H.S.).

The parent used to obtain this new variety 'Sunrovein' was 'Revolution brilliant pink' having very spreading habit and many branches. It has medium single flowers having vivid purplish red (near R.H.S. 74A) petals. The bottom color of the corolla throat is dark purple (near R.H.S. 83A) and outside color of the corolla tube is deep purplish pink (near R.H.S. 70C).

The main botanical characteristics of the 'Revolution brilliant pink' are as follows:

Plant:

Growth habit. - Decumbent.

Plant height. - Approximately 15 cm

Spreading area of plant. - Very large; approximately 100 cm.

Blooming period. - Mid April to late October in the southern Kanto area,

Japan

Stem:

Thickness. - Main stem, approximately 3.0 mm.

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Pubescence. - Normal.

Branching. - Many.

Length of internode. - Approximately 3.0 cm.

Color. - Moderate olive green (near R.H.S. 146A).

5 Leaf:

Whole shape. - Lanceolate. The apex shape is acute, and the base shape is attenuate.

Length. - Approximately 6.0 cm.

Width. - Approximately 3.5 cm.

10 Color. - Upper-side color is moderate olive green (near R.H.S. 146A).

Bottom-side color is moderate yellow green (near R.H.S. 147B).

Pubescence. - Sparse.

Flower:

Facing direction. - Slanted upward.

15 Type. - Single.

Shape of corolla tube. - Thick.

Shape of petal tip. - Acute.

Lobation. - Medium.

Waviness of petal. - Weak.

20 Diameter. - Approximately 7.5 cm.

Color. - Petal; vivid purplish red (near R.H.S. 74A). Bottom color of the corolla throat; dark purple (near R.H.S. 83A). Outside color of the corolla tube; deep purplish pink (near R.H.S. 70C).

25 Reproductive organs. - 1 normal pistil and 5 normal stamens. Color of pistil is grayish olive green (near R.H.S. 137A). Color of stamen is light purple (near R.H.S. 87D).

Peduncle. - Approximately 1.0 mm in thickness, and approximately 2.0 cm in length.

Physiological and ecological characteristics; Moderate resistance to cold and

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pests. Strong resistance to rain, heat and diseases.

The main botanical characteristics of similar variety 'SUNROVE' (U.S. Plant Patent No. 14,125) used for comparison are as follows:

Plant:

- 5 Growth habit. - Decumbent.
 Plant height. - Approximately 10.5 cm
 Spreading area of plant. - Approximately 75 cm.
 Blooming period. - Early April to late October in the southern Kanto area,
Japan

10 Stem:

- Thickness. - Main stem approximately 1.8 mm.
 Pubescence. - Dense.
 Branching. - Many.
 Length of internode. - Approximately 0.9 cm.
15 Color. - Strong yellow green (near R.H.S. 144B).

Leaf:

 Whole shape. - Elliptic. The apex shape is acute, and the base shape is
attenuate.

- Length. - Approximately 8.0 cm.
20 Width. - Approximately 4.4 cm.
 Color. - Upper-side color is moderate olive green (near R.H.S. 146A).
Bottom-side color is moderate yellow green (near R.H.S. 147B).
 Pubescence. - Normal.

Flower:

- 25 Facing direction. - Slanted upward.
 Type. - Single.
 Shape of corolla tube. - Medium.
 Shape of petal tip. - Rounded.
 Lobation. - Shallow.

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Waviness of petal. - Weak.

Diameter. - Approximately 5.5 cm.

Color. - Petal; light purplish pink (near R.H.S. 73C) with vivid reddish purple (near R.H.S. 74A) vein. Bottom color of the corolla throat; brilliant purple (near R.H.S. 81C). Outside color of the corolla tube; very pale violet (near R.H.S. 92D).

Reproductive organs. - 1 normal pistil and 5 normal stamens. Color of pistil is strong yellow green (near R.H.S. 144B). Color of stamen is light purple (near R.H.S. 85A).

Peduncle. - Approximately 0.7 mm in thickness, and approximately 1.7 cm in length.

Physiological and ecological characteristics; Moderate resistance to cold and pests. Strong resistance to rain, heat and diseases.

The main botanical characteristics of similar variety 'Revolution hotpink marrose' (U.S. Plant Patent No. 10,904) used for comparison are as follows:

Plant:

Growth habit. - Decumbent.

Plant height. - Approximately 16 cm

Spreading area of plant. - Large.

Blooming period. - Early April to late October in the southern Kanto area,

Japan

Stem:

Thickness. - Main stem, approximately 3.0 mm.

Pubescence. - Normal.

Branching. - Many.

Length of internode. - Approximately 3.0 cm.

Color. - Moderate olive green (near R.H.S. 146A).

Leaf:

Whole shape. - Lanceolate. The apex shape is acute, and the base shape is

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attenuate.

Length. - Approximately 5.5 cm.

Width. - Approximately 4.0 cm.

Color. - Upper-side color is moderate olive green (near R.H.S. 146A).

5 Bottom-side color is moderate yellow green (near R.H.S. 147B).

Pubescence. - Normal.

Flower:

Facing direction. - Slanted upward.

Type. - Single.

10 Shape of corolla tube. - Thick.

Shape of petal tip. - Acute.

Lobation. - Medium.

Waviness of petal. - Weak.

Diameter. - Approximately 7.5 cm.

15 Color. - Petal; deep purplish pink (near R.H.S. 61D) with dark reddish purple (near R.H.S. N79B) vein. Bottom color of the corolla throat; deep purple (near R.H.S. 83A). Outside color of the corolla tube; deep purplish pink (near R.H.S. 61D).

20 Reproductive organs. - 1 normal pistil and 5 normal stamens. Color of pistil is grayish olive green (near R.H.S. 137A). Color of stamen is light purple (near R.H.S. 87D).

Peduncle. - Approximately 1.0 mm in thickness, and approximately 2.0 cm in length.

Physiological and ecological characteristics; - Moderate resistance to pests.

25 Strong resistance to cold, rain, heat and diseases.

SUMMARY OF THE VARIETY

The new variety of the petunia plant has a decumbent growth habit, abundant branching and great profusion blooms with the whole plant remaining in

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bloom for a considerable period of time. The flowers are single and medium size. The petal color is vivid purplish red with deep purplish red vein. The plant has a high resistance to rain, cold, heat and diseases.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

5 The plants were reproduced by cutting and were photographed in September 2002 while growing outdoors in 24 cm pots at an age of approximately 6 months at Yokaichi-shi, Shiga-ken, Japan

FIG. 1 is a photograph of flowers and leaves of the new variety of Petunia plant 'Sunrovein'.

10 FIG. 2 is a close-up photograph of flowers of the new variety of Petunia plant 'Sunrovein'.

DESCRIPTION OF THE NEW VARIETY

15 The botanical characteristics of the new and distinct variety of Petunia plant named 'Sunrovein', observed during September 2002 at Yokaichi-shi, Shiga-ken, Japan at an age of approximately 6 months, are as follows:

Plant:

Growth habit. - Decumbent.

Plant height. - Approximately 25 cm

Spreading area of plant. - Approximately 80 cm.

20 Blooming period. - Mid April to late October in the southern Kanto area, Japan

Stem:

Length. - Approximately 14.7 cm.

Thickness. - Main stem approximately 2.2 mm.

25 Pubescence. - Normal.

Branching. - Approximately 21.

Length of internode. - Approximately 2.0 cm.

Color. - Moderate olive green (near R.H.S. 146A).

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Leaf:

Whole shape. - Elliptic. The apex shape is acute, and the base shape is attenuate.

Margin. - Entire.

5 Length. - Approximately 4.8 cm.

Width. - Approximately 3.2 cm.

Color. - Upper-side color is moderate olive green (near R.H.S. 146A).

Bottom-side color is moderate yellow green (near R.H.S. 147B).

Pubescence. - Moderate.

10 Flower:

Facing direction. - Horizontal.

Type. - Single.

Shape of corolla tube. - Obconical.

Shape of petal tip. - Obtuse.

15 Lobation. - Medium.

Waving of petal. - Medium.

Diameter. - Approximately 7.0 cm.

Flower depth. - Approximately 4.9 cm.

Throat diameter (distal end). - Approximately 16.6 mm.

20 Corolla tube diameter (proximal end). - Approximately 8 mm.

Corolla tube length. - Approximately 2.7 cm.

Number of petals. - Approximately 5

Shape of petal. - Very broadly obovate.

Petal length. - Approximately 3.1 cm.

25 Petal width. - Approximately 3.2 cm.

Apex shape. - Mucronate.

Margin - Entire, undulated.

Color. - Petal; Upper - vivid purplish red (near R.H.S. 71B) with deep purplish red (near R.H.S. 71A) vein, lower - near R.H.S. 70C. Inside color of the corolla

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throat; moderate purplish red (R.H.S. N77B). Outside color of the corolla tube; light purplish pink (near R.H.S. 62D).

Sepal:

Number. - Approximately 5

5 Shape - Oblong

Apex shape. - Rounded.

Margin. - Entire.

Length. - approximately 2.0 cm.

Width. - Approximately 1.0 cm.

10 Color. - Upper surface - Near R.H.S. 144A; Lower surface - Near R.H.S. 144B.

Reproductive organs. - 1 pistil and 5 stamens. Color of pistil is grayish olive green (near R.H.S. 137A). Color of stamen is light purple (near R.H.S. 87D).

15 Peduncle. - Approximately 1.7 mm in thickness, and approximately 2.0 cm in length. Color. - Near R.H.S. 144B

Lastingness of the bloom. - Approximately 5 days.

Fragrance. - Absent.

Physiological and ecological characteristics; - Moderate resistance to pests. Strong resistance to cold, rain, heat and diseases.

20 This new variety of *Petunia* plant is most suitable for flower bedding, potting and large planters. Pinching of old blossoms will enhance the formation of new blossoms.

A new and distinct variety of *Petunia hybrida* plant named 'Sunrovein', substantially as herein illustrated and described.